

# Featured Correspondence

## Implications of publishing surgical results

**To the Editor:** The conclusion in the article by Bridgewater *et al*<sup>1</sup> that mandatory reporting and public scrutiny have not resulted in risk-averse behaviour but rather have improved surgeons' performance is simply wishful thinking not supported by data from other quality-driven states such as New York.<sup>2</sup> A more likely explanation for their findings is that public scrutiny increased the pressure to assign higher EuroSCOREs, so despite the fact that they operated on patients at lower risk (as shown by the lower mortality), the predicted mortality was higher. A better marker of risk-averse behaviour is the operative risk of patients who the surgeons are turning down, and those dying while waiting for surgery, but these data are not available.

EuroSCORE overestimates operative risk by around double, perhaps because of improved practice but more likely owing to assignment/ascertainment bias.<sup>3-5</sup> When the EuroSCORE is adjudicated by surgeons themselves, public scrutiny of outcomes creates such a powerful conflict of interest that the data are at best questionable and at worst purely a smokescreen. In New York State, the magnitude of the resulting bias was illustrated when comparison of raw outcome registry data after multivessel stenting and coronary artery bypass grafting showed a survival benefit for stenting in most subgroups.<sup>6</sup> After "adjustment" for patient comorbidity data routinely collected by surgeons (but not by interventionalists), the study reported the exact opposite finding, because the surgical patients were assigned greater comorbidity. The counterintuitive nature of this finding (patients with serious comorbidities are usually treated percutaneously/medically) led the authors to report both the raw and adjusted data, so it was quite obvious that this was statistical error due to ascertainment bias.<sup>7</sup>

Besides deterioration in outcomes being induced by risk-averse behaviour, public airing of outcomes inevitably affects surgical training. Consultants are far less likely to allow trainees to attempt difficult procedures when adverse

outcomes will be publicly and wholly attributed to the consultant. The result is rapid deskilling of the workforce.

With increasing pressure from our politically driven masters to feign public accountability with outcome smokescreens, we should take care not to believe our own publicity, lest it damage the core assets of the profession—our skills and our altruism for patients rather than administrators.

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## References

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- 2 **Moscucci M**, Eagle KA, Share D, *et al*. Public reporting and case selection for percutaneous coronary interventions: an analysis from two large multicenter percutaneous coronary intervention databases. *J Am Coll Cardiol* 2005;**45**:1759–65.
- 3 **Yap CH**, Reid C, Yui M, *et al*. Validation of the EuroSCORE model in Australia. *Eur J Cardiothorac Surg* 2006;**29**:441–6.
- 4 **Bhatti F**, Grayson AD, Grotte G, *et al*. The logistic EuroSCORE in cardiac surgery: how well does it predict operative risk? *Heart* 2006;**92**:1817–20.
- 5 **Nashef S**. Validation of the EuroSCORE model in Australia [editorial comment]. *Eur J Cardiothorac Surg* 2006;**29**:446.
- 6 **Hannan EL**, Racz MJ, Walford G, *et al*. Long-term outcomes of coronary-artery bypass grafting versus stent implantation. *N Engl J Med* 2005;**352**:2174–83.
- 7 **Flaherty J**, Davidson C. Coronary artery bypass grafting versus stent implantation. *N Engl J Med* 2005;**353**:735.

**The author's reply:** We thank Dr Ward for his response to our paper. He suggests that the

EuroSCORE has some problems as a risk model, which we have already acknowledged in our paper. We do feel, however, that the EuroSCORE is "fit for purpose" as we have described. The suggestion that apparent improvements in outcome are purely due to surgeons manipulating the risk score is contradicted by the evidence presented; crude mortality was significantly lower after public disclosure despite increases in the mean age and the proportion of octogenarians (along with other risk factors), both of which are objective numerical measures uploaded from hospital information systems and are not open to "gaming" but clearly related to increased operative risk. We have audited the quality of our risk scoring locally and have not seen evidence of "gaming".

Interestingly, the author states that our study conclusions are not supported by experience from New York State, citing a single reference. We summarised data from multiple studies from several American states in our discussion, and put our findings into context. We did not overstate the case. We have already acknowledged that an ideal study into the implications of publicly reporting outcomes would include data on patients turned down for surgery but do not agree with the suggestion that it has damaged surgical training, a claim made with no justifying evidence. Data from our hospital show that the proportion of cases performed by trainees each year 2003–4 to 2006–7 are 31%, 34%, 31% and 34%, respectively, despite named surgeon data being published in 2005. Clearly, the number of cases done by trainees has not suffered, but it is easy to construct an argument that the quality of supervision has improved because outcomes are scrutinised, and it may be that this has contributed to the improvement in quality that we have shown.

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